In re: Hag-ju Cho et al.\Serial No.: 09/923,670 Filed: August 7, 2001

Page 2 of 13

metal oxide layer preferably is thick enough to substantially impede diffusion of hydrogen into the ferroelectric dielectric region in, for example, subsequent fabrication operations. The first metal oxide layer may comprise a metal oxide selected from the group consisting of Al₂O₃, TiO₂, ZrO₂, Ta₂O₅ and CeO₂. Similarly, the second metal oxide layer may comprise a metal oxide selected from the group consisting of Al₂O₃, TiO₂, ZrO₂, Ta₂O₅ and CeO₂. The first and second metal oxide layers may be formed from the same material. In embodiments of the invention, the second metal oxide layer is thicker than the first metal oxide layer. For example, the first and second metal oxide layers may comprise respective first and second metal oxide layers, with the second metal oxide layer being at least about twice as thick as the first metal oxide layer, and less than about ten times thicker than the first metal oxide layer. --

Please replace the paragraph beginning at page 13, line 12 with the following rewritten paragraph:

-- The first blocking layer 40 and the first protection layer 42 may be formed of the same material. The first blocking layer 40 and the first protection layer 42 may be formed of metallic oxide, preferably, Al₂O₃, TiO₂, ZrO₂, Ta₂O₅, or CeO₂. The first blocking layer 40 and the first protection layer 42 may be formed using a method such as an atomic layer deposition method, a low or high pressure chemical vapor deposition method or a plasma chemical vapor deposition method. The first blocking layer 40 may be deposited by one of the methods mentioned above, and then annealed. It is preferable to use a rapid thermal process for the annealing. The first protection layer 42 may be deposited by one of the methods mentioned above, and may be selectively annealed. --

Please replace the paragraph beginning at page 16, line 7 with the following rewritten paragraph:

-- Like the first blocking layer 40 and the first protection layer 42, the second blocking layer 48 and the second protection layer 50 may be formed of the same

Blend



In re: Hag-ju Cho et al.\ Serial No.: 09/923,670 Filed: August 7, 2001

Page 3 of 13

by

material. Like the first blocking layer 40 and the first protection layer 42, the second blocking layer 48 and the second protection layer 50 may be formed of metallic oxide, preferably, Al₂O₃, TiO₂, ZrO₂, Ta₂O₅, or CeO₂. The second blocking layer 48 and the second protection layer 50 may be formed using a method such as an atomic layer deposition method, a low or high pressure chemical vapor deposition method or a plasma chemical vapor deposition method. The second blocking layer 48 may be deposited by one of the methods mentioned above and annealed. It is preferable to use a rapid thermal process for the annealing. The second protection layer 50 may be deposited by one of the methods mentioned above and may be selectively annealed. --

Please replace the paragraph beginning at page 18, line 13, with the following rewritten paragraph:

H

-- The protection spacer 240 and the blocking spacer 242 may be formed of the same material as the first protection layer 42 and first blocking layer 40 of the first encapsulating layer and the second protection layer 50 and second blocking layer 48 of the second encapsulating layer illustrated in FIGS. 2A through 2C. For example, they may be formed from a metallic oxide, preferably Al₂O₃, TiO₂, ZrO₂, Ta₂O₅, or CeO₂. --

Please replace the paragraph beginning at page 19, line 20, with the following rewritten paragraph:



-- The first blocking layer 248 and the first protection layer 250 may be formed of the same metallic oxide as the protection spacer 240 and the blocking spacer 242, preferably, of Al₂O₃, TiO₂, ZrO₂, Ta₂O₅, or CeO₂. The first blocking layer 248 and the first protection layer 250 may be formed by a method such as a high pressure chemical vapor deposition method, a low pressure chemical vapor deposition method, a plasma chemical vapor deposition method or an atomic layer deposition method. --